DISCUSSION OF THE CLAIMS

Claim 1 now recites a silane coupling agent. Support for amended Claim 1 is found on page 12, lines 5-13 of the specification. Claims 1-2 and 4-26 are pending in the present application. Claim 3 is a canceled claim. Claims 23-26 are new claims. Support for the new claims is found in the inventive example on pages 12 and 13.

No new matter is added.

REMARKS

The Office rejected the previously presented claims as obvious and/or anticipated by Pfeil (U.S. 5,908,902). Independent Claim 1 now recites a silane coupling agent. Applicant submits that the Pfeil reference fails to disclose or suggest an aqueous sizing composition that includes the particular epoxy resin recited in the present claims in combination with a silane coupling agent.

Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §102(b).

The original specification includes inventive and comparative examples demonstrating the superiority of the sizing composition of the present claims. The examples are summarized in Table 1 on page 14 of the specification, reproduced below for convenience.

Table 1

	TS_{man}	TS_{15} (gForce/g)	Loss (%)	TS_{45} (gForce/g)	Loss (%)	Thickness recovery (%)		
						1 d	12 d	30 d
Example	302 (-4.4%)	204 (+25.9%)	32.5	167 (+51.8%)	44.7	140	138	137
Control 1	316	162	48.7	110	65.2	137	136	136
Control 2	300	159	47.0	120	60.0	140	137	136
Control 3	301]	147	51.1	110]	63.5	141	139	138
Control 4	327	253	22.2	208	36.0	143	137	137

The example identified as "Example" is an inventive example which includes all of the components and adheres to all of the features of present Claim 1. The inventive example is significantly superior with respect to tensile strength after manufacturing and tensile strength after autoclave treatment for 15 and 45 minutes (i.e., TS_{man}, and TS_{15} and TS_{45}, respectively). The performance of the inventive composition is described as follows:

> The results in Table 1 show that the product according to the invention (Example) has a better tensile strength than the equivalent product containing no accelerator (Control 1) and the percentage loss after aging is less, whether after 15 minutes or 45 minutes of autoclave treatment.

See page 14, lines 3-8.

Table 1 provides several important comparisons that demonstrate that the particular combination of components recited in the present claims provides a composition that has substantially superior properties. In contrast to the inventive example Control 4 includes a conventional phenol-formaldehyde resin whereas the inventive example includes the glycidyl ether-based resin of the present claims. The inventive example is able to provide good tensile strength and low loss on heating. This comparison is summarized as follows in the specification on page 15, lines 16-25:

> The product according to the invention does not have the level of performance of that containing a phenolic resin; nevertheless, it does constitute a good compromise as it reconciles good aging resistance, especially in a wet environment, with very low level of emissions of undesirable gases (which is not the case with the phenolic resins, which release formaldehyde) and a lower energy cost, thanks to the use of ovens operating at lower temperature.

Applicant has thus demonstrated the criticality of obtaining low emission loss and improved tensile strength after autoclave treatment by using the particular epoxy resin of the present claims.

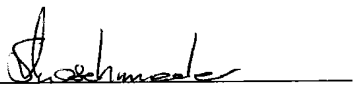
The inventive and comparative examples further demonstrate the importance of including the particular accelerator of Claim 1 (e.g., the accelerators recited in Claim 2) in the claimed aqueous sizing composition. Improved tensile strength is not achievable when the accelerator is 2,4,6-tri(dimethylaminomethyl)phenol instead of the imidazole or imidazoline of present Claim 1 (see page 14, lines 21-25 of the specification).

Applicant submits that the inventive and comparative examples of Table 1 are probative of the non-obviousness of the presently claimed invention. Applicant submits that the subject matter of the present claims, e.g., an aqueous sizing composition that includes a particular coupling agent, epoxy resin and accelerator, and having improved tensile strength properties upon aging, is not foreseeable or predictable from the compositions described in the cited art.

Applicant thus respectfully requests withdrawal of the rejection and the allowance of all now-pending claims.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.



Richard L. Treanor
Attorney of Record
Registration No. 36,379

Stefan U. Koschmieder, Ph.D.
Registration No. 50,238

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/09)